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Communications.

REFRACTIVE INEQUALITY OF THE TWO EYES.

By Swan M. Burnett, M. D.,

Of Knoxville, Tenn.

Read before the Knox County Medical Society.

As a law, corresponding organs upon the right and left sides of the body are symmetrical; the right and left upper and lower extremities are exactly similar in their organic structure, though, from excessive use of the one or the other side, it may be developed in a greater degree.

This law applies with equal exactness to the two eyes. They are symmetrical, as a rule, in a remarkable degree; the color of the iris, size of the pupil, and even the course and number of the conjunctival vessels upon one being the exact counterpart of the other. This similarity is even extended to congenital defects and pathological conditions, *coloboma iridis* being found often not only in both eyes, but occupying the same position on the iris in each. All the forms of *amitropia* are found in nearly the same degree in both eyes; even that very irregular anamoly, *astigmatism*, conforms, in a greater or less degree, to this law. In structure, then, they are strictly homologous. In function, however, as in the case of the extremities above alluded to, there will always be found a slight difference. We use one eye generally in preference to the other. This has been called by Kaiser (Oph. and Ot. Archiv., Vol. I, No. 1) the *predominating* eye. For instance, in taking aim with both eyes open, it is always done with one eye, and that generally the right. Thus, if you fix an object and advance the fore-finger, held vertically, from either side, especially the right side, both eyes being open until the object is covered by it, upon closing one eye you will generally find that the right has been the fixing eye. That this is the result of education is proved by the fact that in many, left-handed persons especially, the left is the predominating eye.

But, as an exception to the general law, we occasionally find a difference also in *structure*, and its effect upon vision is strongly marked. Two cases, opposite in character, have recently fallen under my notice, which I will make a basis of some remarks upon this interesting subject, too little brought to the notice of the general practitioner.

Case I. *H of* $\frac{1}{4}$ *in L. E. E in R. E. No deviation.*

D. F., æt. 16, two years ago suffered from a severe conjunctival inflammation, caused by getting a piece of coal in his eye. As a result of this he thought his sight in that eye had become defective. It was only after the attack that he had noticed any defect, and then it was only by closing the other eye that he became aware of it. The eye, so far as external appearances went, was healthy looking, nothing abnormal being found in either the cornea, iris, lens, or humors. Examination showed that he was barely able, with that eye, to distinguish cc at 20 feet, whereas with + $\frac{1}{4}$ he could read xxx. With the same glass he could read

No. 8 of Jeager, at 18 inches, showing that his accommodation was good. S, however, was somewhat defective. The R. E. was found, upon examination, to be emmitropic. He had, therefore, H = $\frac{1}{5}$ in the left eye. This was confirmed by the ophthalmoscope, the fundus being distinctly visible by the direct method, even with considerable accommodation on the part of the observer. There was no deviation of either eye.

CASE II. *M of* $\frac{1}{5}$ *in R. E. Emmitropia in Left. Strabismus divergens.*

Miss K. M., æt. 24. In her childhood, even, there was noticed an occasional tendency to an outward deviation of the right eye. This disposition increased with her years, and now the strabismus is permanent. She, however, does not suffer from diptopia. This is very readily accounted for by the fact that in divergent strabismus the image in the deviating eye is from a portion of the field of vision so distant from that of the fixing eye that it is readily suppressed. On examination, M = $\frac{1}{5}$ was found in the deviating eye. The ophthalmoscope corroborated this and also showed the characteristic atrophic element around the optic nerve entrance. S. was somewhat defective in that eye; she being only able to read XXX at 20 feet. The left eye was found to be emmitropic. In this case there was observable some slight asymmetry of the face, the size of the right side of the forehead and upper portion of the face appearing to be in excess of that of the left. She has had at times those signs of irritation that are so common in myopic eyes, for one of which I treated her by the usual method of *complete* rest of the eyes and the antiphlogistic regimen.

One of the principal differences, it will be observed, between these two cases is, that in one there was strabismus and in the other there was none. Is this simply a coincidence, or is it the result of a cause operating in one that is not in the other? Let us examine and see. Take the case of H first. There is no doubt but that he has always been affected with H, even from his birth, for it is always congenital, depending as it does upon a shortened antero-posterior diameter of the globe. He had simply overlooked it up to the time when, after the inflammatory attack, he closed the other, and looked with that alone for the first time. In the education of the sense of vision that immediately follows birth, the *corresponding percipient elements of the two retinæ were adapted to the altered conditions*, and the hyporepic eye participated, to a certain extent, in binocular vision, although the image was much less distinct than that of the normal eye. That an indistinct image in one eye materially assists vision with the other is shown by placing a weak convex glass before one eye and looking at an object, first with one eye and then with both. When the object is viewed with each eye separately, there is a considerable difference in the size of the images, the one in the armed eye being the larger; but, when viewed with both eyes together, it assumes a size intermediate between the two, the object is more clearly defined, and especially is stereoscopic vision improved. This was the case in the present instance; there was some assistance given to the normal eye by the hyporepic one, and thus there was an incentive to maintain binocular vision, and as there was nothing in the refractive differences to cause an *active* deviation, the normal relation between the optic axes was preserved, and strabismus did not occur.

In the second case, however, it was different. Undoubtedly in this instance the myopia had been progressive. During early childhood it was, perhaps, not present at all, or if so, in a very low degree. It was during this time that the corresponding percipient elements of the retina were educated, and the relative positions of the optic axes were adopted accordingly. As the myopia increased and the organic change in the globe progressed, the percipient retinal elements, on account of the bulging, posteriorly and laterally of the posterior portion of the globe, had so changed their position that they no longer, during the normal position of the optic axes, corresponded to those of the other eye with which they had been coeducated. Consequently, when the axes were in normal position images no longer fell upon corresponding percipient retinal elements, *which is absolutely necessary to the procuration of binocular vision.* Hence, instead of assisting to define the image it served to confuse it, and in order to avoid this confusion one eye is allowed to deviate passively outward. As in the former case there is nothing in the refractive condition of the myopic eye to actively produce strabismus, but by rendering binocular vision impossible by confusing the image in the healthy eye, it simply does not prevent it.

So long then, we see, as the amitropic eye assists in any degree in binocular vision there will be no deviation; it is only when the eye cannot so participate that strabismus occurs, thus showing that the sole cause of the normal relative position of the optic axes is the faculty of binocular vision.

Differences in the refractive conditions of the two eyes may assume various forms. One may be emmitropic and the other myopic, or Hyperopic, as in the cases just related, or there may be different degrees of either myopia or Hyperopia.

In the treatment of these cases it would naturally suggest itself that all that would be required to make the two eyes equal would be to completely neutralize the ametropia of the affected eye. In practice, however, this has not been found to answer, and upon reflection we can readily see the cause, viz: the difference in the *size* of the two images. If we use a convex glass, the image is increased; if a concave glass, it is diminished in size; and in either case the rays from any part of an object do not fall upon corresponding points of the two retina, which we have seen is essential to binocular vision, and as a result, the image becomes blurred. Within certain limits, however, we are able to make a compromise between the two eyes; if, for instance, the difference in refraction does not exceed 1-30 or 1-40, for then the size of the image is not sensibly altered. In high or even moderate degrees this is not admissible.

In cases where there is deviation, the question as to the propriety of an operation naturally arises. For visual purposes it would avail nothing, for it can never be made to participate in binocular vision. In fact, as we have already seen, it was because it could not assist in binocular vision that it deviated primarily. For cosmetical purposes an operation is equally unsatisfactory, for though we may be able to procure parallelism for distant vision, still those eyes are very rarely able to converge well. In cases where there is myopia in one eye, with an outward deviation, it is best to use the deviating eye for near work, and the other for distance; you are thus enabled to retain the visual power of the deviating eye, something very much to be desired in case the other should from any cause become lost. If an effort, by constant practice, is not made to retain this visual power, we will have *amblyopia and anopsia.*

TEACHING THE DEAF AND DUMB TO SPEAK.

By Laurence Turnbull, M. D.
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Continued from page 495.

The broken outline of the face, which has been retained as an assistance to the memory, is now dispensed with, and the pupil is required to describe all the symbols again.

For the convenience of the reader the names of the symbols are given in a tabular form, using the initial letter of the words, shut, voice, nose, lip, point, front, back.

Fig. 2.

(*Key to Fig. 2.*)

N	V	L	P	F	B
		LV	PV	FV	BV
		LN	PN	FN	BN
		LVN	PVN	FVN	BVN
		LS	PS	FS	BS
		LSV	PSV	FSV	BSV
		LSN	PSN	FSN	BSN
		LSVN	PSVN	FSVN	BSVN.

It will be observed that, though at the first lesson thirty-four characters have been introduced, the memory is burdened with only four forms, viz: a curve (turned in different directions), a crooked line, a thick, straight line, and a thin one.

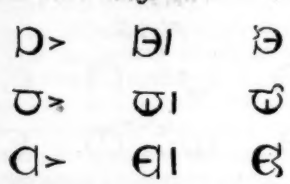
Though the sounds of speech may be *infinite* in variety, they are all formed by a limited number of organs; and they can all be represented by the combinations of ten elementary symbols.

The name of a sound-symbol is in reality a command *to do something with the mouth.*

Take, for example, the first character in the eighth line (see illustration), "lip, shut, voice, nose." This is, in effect, a direction to shut the lips and pass the voice through the nose. In explaining this symbol to a deaf mute, one of his hands is placed upon the teacher's throat, and the other against the nose. If, then, the teacher makes the sound of the letter M, the pupil *sees* that the lips are shut, and *feels* a vibration in the throat and nose.

The symbols in fig. 3 represent the sounds

Fig. 3.



of the following letters, as taught to the children in the Boston school:

P B M
T D N
K G NG.

All one can say concerning the Roman letters is, that P is P, B B, etc. But the symbols tell us that P is formed by shutting the lips, and then making a puff of air, while for B, the lips are to be shut while the voice is sounded, and then a puff of voice is to be given, etc.

The characters exhibit to the eye all the relations that the sounds themselves do to the ear; and the organic relations are just as clearly shown:

As P is to B, so is T to D, and K to G.
As B is to M, so is D to N, and G to NG.
As P is to T, so is B to D, and M to N.
As P is to K, so is B to G, and M to NG, etc., etc.

P, B, and M have the "lip" and "shut" signs in common; and in sounding all, the lips are shut.

T, D, N, agree in shutting off the breath by means of the point of the tongue, and K, G, NG, in the closing action being performed by the back of the tongue.

Furthermore, the sounds P, T, K (represented by the same symbol, turned in different directions), are made by the same organic action performed at different parts of the mouth; so with B, D, G, and M, N, NG.

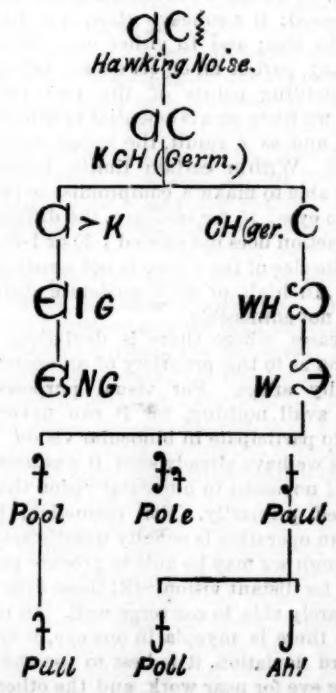
When a deaf mute has thoroughly mastered the meaning of the symbols, he is required to sound one of the characters; that is, the attempt is to be made to do with the mouth what the symbol directs.

The pupil, having little or no control over the movements of the vocal organs, will probably make a very different sound from that intended; but the first point gained is, that he makes a noise of some kind. Whatever it happens to be, whether a cough, or a growl, or a sneeze(!), it can be written symbolically. From this sound as a starting-point, others can be developed in every direction, until all the English elements have been obtained.

Mr. Bell illustrates this by a case that actually occurred.

A middle-aged deaf mute, a resident of Boston, was studying the symbols.

Fig. 4.



His attention was directed to the vibration of the throat in sounding voice. He attempted to imitate this by a peculiar hawking noise, somewhat as if he were coughing up phlegm.

After repeating the sound several times, he analyzed the representation of it (see fig.

4), and thus became conscious of what his mouth was doing. In forming this sound the tongue is first put back so as to shut off the air from the mouth. The breath is then forced out between the tongue and soft palate in such a way as to set the uvula vibrating.

Upon presenting the symbols to him, minus the "trill" or shake, he made the sound gently, and without vibrating the uvula. What he gave was, in reality, an English element (K), followed by the German sound of *ch*.

The next point to be attained was to separate these elements, so as to have the English sound on one side, and the foreign one on the other The first element of his sound was accordingly written with the sign for a puff of breath after it. He gave at once the letter K. The German *ch* was also obtained at sight of its symbol.

The attempt to pronounce K with voice produced G; and NG resulted from passing the voice through the nose.

By sounding the German *ch* with the lips nearly closed the English WH was obtained. W was given by adding voice. This sound may be considered, for all practical purposes, identical with the vowel *oo* in "pool." From this vowel five others were obtained by merely opening the mouth very gradually.

Thus, from the original hawking noise, eleven English sounds were developed by the directive power of the symbols.

This method of leading from one sound to another renders the acquisition of the English elements a matter of absolute certainty; but it is inapplicable to very young children. In all cases, however, mechanical assistance will accomplish what the intellect of the child is unable to do. The symbols inform the teacher of the correct position of the organs in producing any sound. By the exercise of a little ingenuity the child's tongue can be pushed into the required position by means of a pencil or pen-holder.

Mechanical assistance has been found to be so absolutely necessary that a manipulator of convenient shape has been constructed of ivory.

Suppose we fail to obtain K from a child; a sound of *similar formation, but further forward in the mouth*, may be experimented upon. We shall presume our pupil can pronounce T. In T, the shutting action is performed by the point of the tongue; in K, by the back (see fig. 3).

If the teacher holds the manipulator so as to prevent any portion of the tongue from rising *except the back*, the attempt on the part of the pupil to say T will produce K. The manipulator is at once placed in the hands of the pupil himself, and the experiment is repeated. A mirror held before his face shows him the position of his tongue. It invariably follows that after a few attempts the child is enabled to pronounce the sound without any assistance whatever.

A plan for the development of sounds by means of the manipulator has been devised. It may be interesting to know that twenty-six English elements can be *forced* from the one sound TH.*

(To be Continued.)

PUNCTURE IN THE TREATMENT OF ACUTE SYNOVITIS, AND ORCHITIS.

By A. B. Cook, M. D.,
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It would be a waste of time to enter into a general disquisition on the nature, pathology, sequences, and treatment of synovitis and orchitis, these subjects being discussed in the standard surgical works. The journalistic reader wants facts developed in the treatment of cases, from the general results of which the best and safest combined modes of treatment are derived.

I propose briefly to give the result of early puncture, in preference to the course usually advised of deferring this valuable adjunct in treatment to a later period of the disease, or after other remedies have failed.

Case 1. W. C——, age 19, delicate constitution, scrofulous predisposition, was attacked with acute synovitis of the right knee joint, caused by exposure to inclement weather and active exercise on foot. The case presented the usual constitutional and local symptoms. The treatment at first was moderately antiphlogistic, followed by iodide of potash, iodide of iron, bitter tonics, etc; the local treatment consisted of absolute rest, fomentations, counter-irritation by blister, iodine, croton oil, pressure by bandage, all of which failed to make any impression on the fluid effused in the synovial membrane. I then punctured the synovia

* Opt. cit.

with an exploring needle having a deep groove, and removed the fluid; the joint was then enveloped in cotton batting and a bandage applied from the toes to above the knee. In two days there was a slight recurrence of fluid, which was removed by the same means; the cotton and bandage were reapplied; there was no further effusion. Six days later the cotton and bandage were removed, the elastic band was applied to the knee to give support, and the patient was advised to take gentle out-door exercise. In a few weeks the functions of the joint were entirely restored.

CASE 2. D. B——, wash woman, age 40, a hard worker, health generally good, had acute synovitis of left knee joint, accompanied with constitutional fever and local acute pain, tenderness and swelling. Ordered antiphlogistic regimen, with opiates to allay pain; locally rest and anodyne fomentations. On the third day I detected slight effusion; inserted the exploring needle and removed about two drachms of serous fluid which gave great relief to pain. The following day I again introduced the needle and removed about one drachm of fluid. The joint was enveloped in cotton batting and a bandage drawn sufficiently tight to secure continuous gentle pressure; there was no reaccumulation of the fluid; in three or four days the patient was out.

I do not now hesitate to resort to puncture as soon as effusion is detected. As an adjunct to treatment its advantages are early removal of effused fluid; ready relief of pain; shortening the duration of the disease, and the prevention of the complications following the long continuance of hydrarthrosis. The pain caused by puncturing is very slight, and with proper care and knowledge of anatomy, there is no danger of injury being done to the structures of the joint. I prefer the grooved needle to any other instrument from the fact that it is simple, convenient, safe, easily applied, and excites no alarm in the patient.

In acute orchitis, effusion to a limited extent occurs early in the course of the disease, and from its gradual increase and pressure is a great source of the constant pain of which patients so much complain. For years past I resort to puncture when fluctuation is first detected, which gives immediate relief, shortens the duration of the case, and avoids the necessity of resort to the many remedies prescribed for the removal of the hydrocele. After puncture I apply to the scrotum, as indicated by the symptoms, either warm or anodyne fomentations, or stimulating embrocations, or lint covered with oiled silk, and retained by a suspensory bag or T bandage. In all cases the special, constitutional, and local treatment must be governed by the cause of the disease.

HOSPITAL REPORTS.

WILLS OPHTHALMIC HOSPITAL.

Clinic of P. D. Keyser, M. D.

[REPORTED BY WILLIAM F. CHURCH, M. D]

Granular Lids, with Pannus.

W. J., æt. 23 years, was admitted, suffering with large fungus granulations and considerable chemosis. This is an affection characterized by a roughness and swelling of the conjunctiva. It often presents the appearance of hypertrophied papillæ, sometimes as vascular excrescences resembling roundish granules. It is a purely local affection, always proceeding from external injuries affecting the conjunctiva itself. Contagion plays the most important part. The purulent and muco-purulent secretion of granular conjunctivities is the potent bearer of contagion. This disease is strictly a chronic one. We often find the cornea in a state of vascular haziness, as in the present case. The trachomatous development has passed from the granular conjunctiva to the superficial layers of the cornea, and so caused those changes which are known as *pannus*. Where this is present the patient is troubled by disturbance of vision.

The treatment in this case consisted in touching the granulations with *lapis mitigatus*, and using a compress bandage to reduce the chemosis. The *lapis mitigatus* that was here employed is composed of one part argent. nitrat to three of potassæ nitrat. This was followed by the local use of cupri sulph. in substance, touching lightly. Cases of this sort are always tedious, and require much time and patience for their successful treatment.

Pterygium.

W. B., æt. 66 years, presents himself suffering from a pterygium. He has had a chronic conjunctivitis of four years' standing, which has developed this pterygium. It is composed of a corneal and conjunctival portion: The corneal portion is generally a thick, tendinous, vascular, connective tissue formation. The conjunctival portion is nothing but a hypertrophy of the ocular conjunctiva, and the submucous tissue belonging to it. The pterygium is usually very loosely attached to the sclera lying beneath, and may often be raised up with forceps, from the apex to the base, like a

fold. Once developed it is permanent, its disappearance being extremely rare. The apex of the pterygium generally rests on the margin of the cornea, going often toward the centre, but rarely passing beyond. In the treatment, any inflammation must be combatted antiphlogistically, after which astringents may be used. When the symptoms of irritation have subsided, an operation for its removal may then be performed. There are several methods recommended, that of excision with a pair of scissors curved on the flat, that of ligation, by passing double ligatures through and around it, and that of transplantation. The operation on this patient was a combination of the first two mentioned methods. The pterygium was separated from the cornea by shaving it off close with a cataract knife, as far as the limbus conjunctivalis; the point of a pair of small, straight scissors was inserted under the conjunctiva, along the upper edge of the pterygium, which was then cut through to its base near the plica; the lower edge was incised in the same manner. The whole growth was now thrown aside; the edges of the conjunctiva were loosened from the ball and brought together by three sutures, thus completely covering the space from which the pterygium was removed. A ligature was then thrown around the base of the pterygium and drawn tight.

The advantages in this mode of operation are, that the gap in the conjunctiva is closed, and thereby sooner unites, and that the pterygium being ligated, will slough off. Before this takes place the conjunctiva has adhered and is nearly all healed, and hence no vessels can shoot out from the base of the pterygium into the conjunctiva, which might, perhaps, cause a renewal of the disease.

Hypermetropia.

A. H. presented herself with the complaint that she could not see clearly, everything being blurred, and the eyes ache on the least use of them. She gave the history that her eyes always have troubled her, the left one never having been so good as the right. Health appears to be good; eyes, from outward appearance, seem good and healthy; on examination with Snellen's test types, the vision of the right eye was found to be $\frac{20}{XXX}$, that is, with the right eye she could make out the letters marked XXX at twenty feet distance. The left eye, examined in the same way, showed a vision of $\frac{20}{XL}$. A convex glass of forty-eight inches focus, held before the right eye, improved the vision, but still could not define the letters distinctly. Before the left eye it was necessary to place a convex glass of twelve inch focus in order to improve the vision to such a degree that the lines of XX could be seen, but not perfectly made out.

Ophthalmoscopic examination showed the fundus of each eye normal, but in both there is hypermetropia in the horizontal meridian, and myopia in the vertical meridian, with a greater degree of hypermetropia, giving a mixed astigmatism, with predominance of hypermetropia—Ahm. In the left eye the predominance of hypermetropia is much greater than in the right. By minute examination with the test glasses and types, in the right was found a hypermetropia of $\frac{1}{36}$ in the horizontal meridian, and a myopia of $\frac{1}{48}$ in the vertical, $\frac{1}{36}$ c $\overline{\frac{1}{48}}$ c. In the left eye was found a hypermetropia of $\frac{1}{10}$ in the horizontal meridian, and a myopia of $\frac{1}{48}$ in the vertical meridian, $\frac{1}{10}$ $\overline{\frac{1}{48}}$ c. With these combinations vision in each eye became $\frac{20}{XX}$.

PENNSYLVANIA HOSPITAL.

Medical Clinic of J. M. DaCosta, M. D., Professor of the Practice of Medicine in the Jefferson Medical College.

[REPORTED BY RALPH M. TOWNSEND, M. D.]

December 30th, 1872.

Three Cases of Syphilitic Paralysis.

The cases of paralysis that I bring before you to-day differ from those which have engaged our attention at previous clinics; and we generally have the satisfaction, after recognizing their source, of being better able to benefit them than those arising from most other lesions.

The first case, Joseph F., aged 40 years, had chancre ten years ago. A short time afterwards he had sore throat, and his hair and eyelashes commenced to drop out. He was placed by his physician on specific treatment, and slowly convalesced. He remained well for nine years, until last March, when he was suddenly seized with paralysis of the left arm, leg, and side of the face. This paralysis was attended with partial loss of consciousness. He entered the hospital, July 23d, and remained until Aug. 8th, somewhat improving during his stay. He then returned home, but had only been there a few weeks when he was again seized with symptoms of apoplexy, nearly all consciousness and power of motion being gone. He slowly recovered from the attack, and re-entered the hospital, Oct. 21st.

He was ordered

R—Hydrarg. chlor. corros, gr. 1 24.
Potassii iodidi, grs. v.
Syrup. sarsap. comp,
Inf. gentian, aa ʒj. M.
S. The above quantity *t. d.*

On examination his urine is found to be acid, s. g. 1030; contains no albumen. In walking the patient swings his left leg, and the grasp of his left hand is very weak. He moves his left hand up to his head far less readily than his right. There is considerable atrophy of

the left arm. The battery test shows muscular contraction good on the affected side, and sensibility slightly increased.

Facial palsy exists only in light degree, the mouth being slightly drawn to the right side, as is apparent when he attempts to whistle. His pupils are small and react sluggishly to light. He has no disease of heart or kidneys. He has no headache, no giddiness, no loss of appetite, no sleeplessness, and his nutrition is well kept up except in his arm.

How do we know that this hemiplegia is syphilitic; and how do we know that palsy in a syphilitic man is due to syphilis?

Look at this man. He is still vigorous and healthy, and but verging on middle life. He has led a healthy life, has not been overworked, has had no mental trouble. Again, his symptoms came on suddenly and he got well rapidly to have something like a second attack. This is common in syphilitic hemiplegia. One of the striking elements of paralysis due to syphilis is, that where it affects the muscles of the face it does not do so for a long time, the facial palsy mostly passes of with extreme rapidity. We have these points then, outside of our patient's history, to stamp his disease.

Case 2. W. W., aged 27 years, admitted Nov. 27th, is a sailor; his family are healthy, and previous to the present attack the patient has been so. He contracted a chancre in the latter part of September. About Oct. 15th he was seized with pains in the left side of his neck, followed in a week by nocturnal frontal headache, and a short attack of sore throat. During the last week of October the left side of his face became paralyzed. For a week past he has been troubled with tenacious phlegm in his throat.

He has had a slight eruption on the scalp, and his hair has been falling out for six weeks. He has never had any eruption on any other part of his body. On admission, he complained of a sensation of numbness in the left side of his face and of frontal headache at night.

Present examination reveals no paralysis of any part of the body except the face. He still feels numb on the left side of his face. He has no affection of his legs or arms; walks well; has no giddiness; no supra or infra-orbital pain on pressure; no pain on pressure at the angle of the jaw; and his tongue, coated, does not deflect when protruded. Formerly, when told to hold his eyelids tightly shut, the right was much more easily drawn up than the left; but to-day the paralysis of left lid is hardly apparent, or at all events, is exceedingly small compared with the remaining facial paralysis. When he tries to whistle the mouth is drawn to one side.

Tested with the battery the right facial muscles are found to act with great readiness. On the left side the angle of the mouth is not lifted by the current, and although the masseter contracts, the muscles generally do not contract with anything like the same readiness as they do on the right. The current is felt more on the right than the left side; electro-motor sensibility is therefore seriously impaired, although not abolished, on the left side.

This man's urine on admission was acid; s. g. 1035; heavily loaded with urates, but contained no albumen.

He is taking one twenty-fourth of a grain of the corrosive chloride of mercury, along with five grains of the iodide of potassium, three times daily. He has ordinary diet and an occasional purge. If he bears this prescription well, in three or four days we will double it. He has no disease of the heart or kidney.

Case 3. J. L. M., aged 25 years, a shoemaker, admitted Nov. 5th, comes from a healthy family. One of his sisters died of consumption. With the exception of his present ailment he has always been healthy. He had chancre a year ago, followed two weeks afterwards by sore throat which lasted a month. He has never had iritis or pain in his shins. Six months ago he had an attack of frontal headache. During July he did not feel well, although he was not positively sick.

About the first of August he breakfasted as usual, and then went up stairs to lie down. Upon getting up from his bed he fell upon the floor, completely paralyzed on the right side, and with his power of speech gone. His aphasia was complete until about three weeks ago, since which his speech has been improving. His paralysis is also less complete than it was, but it is still marked.

Present examination shows his tongue, when protruded, drawn slightly to the left, as are his mouth and nose. His speech is halting, thick, and mumbling. There is no falling of either eyelid. The pupils are rather large and react to light, and there is no appreciable difference in their size. Both sight and hearing are unimpaired. When he walks he throws his right leg, and he cannot well lift up his right arm.

Tested by the battery electro-muscular sensibility is found equally acute on both sides, but the muscles do not contract quite as readily on the paralyzed side. His urine is acid, s. g. 1008; contains no albumen. His temperature averages 98.5° F. His pulse varies between 86 and 100. His heart is healthy. He is taking the one twenty-fourth of a grain of the corrosive chloride of mercury and five grains of the iodide of potassium, dissolved in compound syrup of sarsaparilla and infusion of gentian. His bowels are kept open, and his diet is nourishing.

Looking connectedly at these cases we are struck with the age; they are all young men. In this respect syphilitic paralysis has a history of its own. It attacks the comparatively young. Other palsies are prone to happen after middle life.

Secondly, the cases all agree in their sudden coming on. In this respect we have differences, the paralysis at times being of gradual origin.

There are two or three distinct causes which give rise to distinct groups of syphilitic hemi-

plegia. The first is where a distinct syphilitic tumor (gumma) forms in the brain. This is not infrequent. Its presence gives rise to great pain in the head, and from its pressure on some certain portion of the brain or nerve origin, we may have a local palsy, or deafness of one ear, or blindness of one eye. The headache is constant, and when the tumor is seated superficially, or in the meninges of the brain, there is a tendency to convulsions, frequently repeated. In these cases the palsy is apt to happen gradually.

Another condition presents spots of localized softening which ultimately give rise to small apoplexies. I had such a case in a young man with constitutional syphilis from infecting chancre. He had frequent attacks of vertigo. One night he was brought home from the opera with thick speech and hemiplegia. What had happened? The softened part of his brain had given way, or an apoplectic clot had formed in this previously softened spot.

A final condition is where we have plugging of the arteries of the brain. This constitutes a very interesting class. It happens thus. We know that syphilis is apt to seize upon the vascular system. It attacks the vessels of the brain, roughens their coats, arrests the circulation, a clot forms, and plugging takes place. In both the latter classes paralysis comes on suddenly.

Have I reason to think, in any of the cases that we have had before us, a tumor caused the trouble? Distinctly not! All these cases have been marked by the absence of vertigo, or steady headache, so significant of cerebral tumor. Again, none of them have had convulsions, and in most cases of tumor we have convulsions as a prominent symptom. In cases one and three, emboli or clots were most likely the cause of the sudden attack. In case two, the diagnosis is more difficult. Here, on the right side of the face, we had marked anæsthesia, inability to raise the corner of the mouth, and slight paralysis of the upper eyelid. We might suppose that branches of the fifth were the only affected, it being a mixed nerve, conferring sensation on the tongue, cheek, and angle of the mouth, and giving motor power to the muscles of mastication. But the sensibility of the tongue remains intact on either side, and the paralyzed muscles, notably the *levator anguli oris*, the *orbicularis*, and the *levator palpebræ superioris*, receive their motor power from the seventh (portio dura) and the third (motor oculi) nerves, respectively. We must assume, therefore, as the most likely solution of this case, that we have had some exudation of a syphilitic character, in the neighborhood of the pons Varolii, pressing the origins of the affected nerves.

All these cases are improving under treatment, and the prognosis of all is not unfavorable. In those in which actual rupture preceded the marked attacks of palsy that happened, the prognosis is less favorable.

Gray Hepatization of the Lung—Post-Mortem Appearance.

The man came in the hospital only to die, as he was admitted in a moribund condition and perished in twenty-four hours. Briefly, this is his history. David W., aged 43 years, was brought to the hospital Nov. 12th. On admission the pulse and respirations were very rapid, hands blue, great dyspnœa, and acute pain when the upper part of the left chest was touched. He was so very sick, and in such great pain that it was impracticable to make a thorough physical examination. There was dullness on percussion over the left lung anteriorly for five inches below the clavicle; and bronchial respiration over the same extent of space. Friction sounds were also heard. Harsh respiration, with some dullness on percussion, existed over portion of the right lung posteriorly. He was ordered one-half a grain of digitalis, one-eighth of a grain of the watery extract of opium, and one grain of the sulphate of quinine, every three hours. He also had a hot flaxseed poultice applied to the chest and was given milk punch. His pulse in the evening was 148, respiration 46, temperature 102° F.; and his urine was alkaline and albuminous, with a s. g. of 1024. The next day he was much worse, pulse 140, respirations 24 and very labored. His pill was stopped and he was ordered whiskey, ℥j every half hour; ten grains of the carbonate of ammonia every two hours; and two grains of the sulphate of quinine every two hours. He died the same afternoon.

Post-mortem. The left apex of the lung shows gray hepatization, the so-called third stage of pneumonia. The right lung is simply congested, but shows a much darker color than the other side, so that, unless we were aware of the morbid anatomy, we would take the right lung to be the one with the most serious marks of disease. The left lung is solid, not crepitating, and a section of it sinks when thrown into water. A similar section of the right lung floats. This is the actual test of disease, no matter what may be the visual appearance.

What is the exact morbid process here? The coloring matter is very much changed, absorbed. Another peculiarity consists in the granular degeneration of the exudation that has taken place. It is a current belief that pus is the product of the third stage of pneumonia; this is not always the case, as we may have a granular or fatty degeneration, as in the present case, without the formation of pus. This hepatized lung is easily torn. The next question that occurs to us is, could a person recover with such a condition of lung? Recovery from such a state is very doubtful, especially if much of the lung be involved. Pain was a curious clinical feature of this case. There was some plastic exudation posteriorly, but not much anteriorly, where the patient complained so much. There are some cases of pneumonia where chest pain is a prominent symptom; an hyperæsthesia, in fact, of the cutaneous surface over the lung.

EDITORIAL DEPARTMENT.

PERISCOPE.

Belladonna in Ophthalmia.

Mr. HENRY POWER writes to the *Practitioner:*—

The following is a *résumé* of one of the cases that has recently been under my care, showing the benefit that may be derived from the use of the extract of belladonna in obstinate phlyctenular ophthalmia:—

M. C., æt. 4, was brought to me in the beginning of January of the present year. She had had measles (not an unusually severe attack) in August, 1871; this was followed by stoppage in the nostrils and herpetic eruption on the lip and on the right ear. At the end of August her mother took her to Yarmouth for a month. She was ailing all the time she staid there, complaining of thirst, with restlessness at night, languor, and loss of appetite. These symptoms continued up to November, when the right eye became affected. She was taken to an ophthalmic hospital, when some tonic medicine was ordered for her, and a poultice was directed to be applied. A crop of pustules appeared over the brow, temple, and cheek, and the left eye became affected. I then saw her, and found that she was suffering from a well-marked attack of phlyctenular ophthalmia. On examining the eyes several pustules were visible on the conjunctiva at the margin of each cornea, whilst superficial abrasions or ulcers were apparent on the corneæ themselves, the right being much the more severely affected, so that a large part of its surface was cloudy. She was ordered a purge, and a powder containing three grains of hydrargyrum c. cretâ with one of quinine, thrice daily. A four-grain solution of atropine was dropped in, and a lotion of extract of belladonna given to take home, and to be used frequently. But little improvement resulted, though the mercury and quinine were continued for a fortnight. The bowels being somewhat disordered, and the lips and ala nasi having some pustules upon them, it was thought likely that there were worms. Another purge of compound jalap powder and a turpentine injection were therefore ordered. No worms, however, were observed in the motions; cod-liver oil was now prescribed, and after a short time a little steel wine was added to it. The use of the belladonna lotion was continued. This plan was persevered in for a month, with little benefit, the child sometimes opening the eyes in the evening and playing about, but always coming to me in the morning with intense photophobia. The mother was exceedingly intelligent, and assured me that the bowels were regular, the motions natural, and that the food given to the child was carefully selected, wholesome in quality, and though its appetite was variable, yet, upon the whole, the quantity was sufficient for its needs. Calomel powder was now applied directly to the cornea for several days, but ineffectually, so far as the relief of the photophobia was concerned.

Finding that the symptoms were stationary, I now determined to tap both eyes with a broad needle, and allow the aqueous humour to escape. The benefit was considerable, the child opening the eyes on the following days for some hours, and I thought recovery would take place without further trouble. However, a relapse soon took place, and she was now placed upon one-sixth of a grain of good extract of belladonna three times a day. In two days the mother brought her to me obviously greatly improved. The intolerance of light had greatly diminished, and she even saw to pick up a pin on the carpet. She continued the use of the extract for a fortnight, when it was given up, and some quinine mixture ordered. A few days later she went into the country. This child has lately been seen by me, looking fresh and rosy, with only slight nebulæ on the corneæ of both eyes, but able to bear strong light perfectly; and I can feel no hesitation in attributing the improvement here observed to the internal use of the belladonna, it was so immediate and proved so persistent.

Ætiology and Therapeutics of Miasmatic Pyæmia.

M. Hüter, as quoted in *The Practitioner*, divides pyæmic affections into two chief forms; pyæmia simplex, which is a pyæmic fever occasioned by direct or indirect infection with pure pus; and pyæmia multiplex (metastatic pyæmia), occasioned by septic infection of thrombus, proceeding from the wound, and multiple collections of matter proceeding from the latter. The causes of pyæmia multiplex are divisible into the indirect, or those favoring the extension and multiplication of thromboses; and the direct, producing the softening or septic infection of thromboses. The production of thromboses is favored by general and local disturbances of the circulation, producing lowering of the arterial pressure and prolongation of the stasis of the circulation throughout the whole nervous system, or in special veins; to the former belong old age, bad food, loss of blood, traumatic fever, intercurrent febrile diseases; to the latter, local disturbances of nutrition, ligature, compressions of veins in consequence of inflammation. The softening of thrombi produces every kind of phlebitis. The septic infection of thrombi is partly chemical, and due to decomposing muscle and connective tissue; and partly animal, due to monads (microsporon

septicum of Klebs). The latter develop in large numbers in the form of very small round corpuscles in decomposing blood, pus, and urine, in which they live as long as the fluid contains oxygen. In putrifying muscle or connecting tissue water they speedily die, and are replaced by the larger staff-shaped nuclei. The monads produce locally diphtheritic inflammation and septic phlegmons. They enter the circulation in large numbers, producing erysipelas or diphtheritic inflammation of the subcutaneous connective tissue, septic infection of thrombi, and secondary pyæmic embolia. The vibrios only produce local putrefaction. They do not, on account of their size, and their relation to pure oxygen, gain entrance into the circulation. Pyæmia multiplex never arises from simple embolia, nor from infected thrombi, and they cannot therefore be characterized as embolia; nevertheless, all infectious traumatic diseases do not depend on the entrance of fungi. Septicæmia originates for the most part, in intoxication with chemical putrid poisons; whilst the diphtheritic affections are produced by monads. Collections of matter may also be produced by mechanical or chemical lesions. Metastatic disease, especially of the lungs, very probably arises from the entrance of emboli permeated with monads into the branches of the pulmonary artery, as well as by simple migration of monads (Klebs). The latter, perhaps, is the means by which the pyæmic inflammation of the joints and serous membranes arise. The treatment of metastatic pyæmia is, therefore, essentially prophylactic; the loss of blood in operations should be carefully avoided. The incisions should be clean and sure, and all contusions of the tissues by the ligature or écraseur should be avoided. The surface of the wound should be cleansed by irrigation with disinfecting fluid, as by Condy's liquid; carbolic acid dressing should be applied, and care should be taken that no secondary hemorrhage occurs. The pus produced should be allowed to flow away freely by means of drainage tubes. Abscesses should be opened early, tight bandages removed, gangrenous tissues should be cut away, and diphtheritic surfaces should be cleansed by cauterization, as by the actual cautery, or by concentrated carbolic acid; in erysipelas and lymphangitis inunctions of pix liquida may be employed, with steady pyæmic treatment of the fever, and prevention of abscesses as far as practicable.

Large Doses of Camphor and their Effect.

The following case is reported, among others, by Dr. JOHN HARLEY, in the *Practitioner*:—

Henry A., aged 17, a strong, active young man, troubled with seminal emissions twice a week, and the usual nervous symptoms. He was greatly relieved by hemlock, ʒvj of good succus producing moderate cicutisms. After an interval of some months he again applied to me, and this time I prescribed camphor. He took two doses of four grains each; after an interval of a week, seven doses of five grains each, on consecutive days; and for the next six days, five grains night and morning. The following week he took ten grains every morning before breakfast, and I then increased the dose to fifteen grains, which was taken every other morning for a week longer. During the next two months he took a dose of camphor, progressively increased from eighteen to thirty grains, at intervals of two or three days; and for four consecutive days during the latter part of the time he took thirty grains night and morning. The effect on the irritation of the sexual organs was marked, emission occurring only once a fortnight during the time the camphor was taken. No dose less than fifteen grains produced any appreciable effect. When this quantity was taken before breakfast, it caused giddiness after fifteen minutes, disappearing in the same interval of time. Giddiness lasting a quarter of an hour, and a warmth of stomach "as if he had taken spirits," followed doses of twenty grains. The following observations show the effect of twenty-five, thirty, and thirty-five grains respectively:—

Twenty-five grains of camphor were taken when the pulse after walking was 79, the pupils $\frac{1}{5}''$, and the tongue clean. After twenty minutes there was giddiness, but the patient did not show it, and a warmth about the chest; the pulse 76. The giddiness lasted half an hour. After two hours the pulse was 73, regular, and of its usual volume and power; the pupils and tongue were unchanged throughout, and although he had been sitting still in a darkish room during the whole of the time, there was no somnolency.

Thirty grains of camphor were taken when the pulse, after a walk, was 88, full, and regular. The usual giddiness came on after a quarter of an hour, and continued for half an hour; to me it was not appreciable. After thirty-five minutes the pulse was 76, and had returned to its usual volume and force for a state of quietude; a diffused feeling of warmth throughout the body, but especially behind the sternum. After an hour and three-quarters the pulse had risen to 86, but was otherwise unchanged; the other symptoms had passed off, and there was no somnolency.

Thirty-five grains of camphor were taken after a walk, when the pulse was 86, and the pupils $\frac{1}{7}''$. Giddiness "over the back and top of the eyes" came on in a quarter of an hour, and continued at its maximum for twenty minutes. There was no default of vision. After thirty-five minutes the pulse was 76, full, and bounding; the cheeks hot and flushed, and there was a little somnolency; no change of pupils or tongue, and a sensation of warmth over the upper part of the chest. After two hours the pulse was 76, regular, and of its usual force and volume; the somnolency and flushing were gone, but he still felt heavy about the eyes. He now walked home, and experienced slight giddiness on reaching home, lasting half an hour.

No greater effects were produced when thirty grains were taken twice a day.

The urine was examined after the operation of the medicine on each of these occasions; it was always normal in quantity and composition, and it possessed its natural odor, being entirely free from that of camphor; nor was the odor of camphor in the least degree appreciable in the cutaneous or pulmonary exhalations of either patient. The respiration was not affected to any appreciable extent in either case.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——Dr. Brown-Sequard proposes soon to begin, with the assistance of his friend, Dr. E. C. Seguin, and several New York, Boston, and Philadelphia physicians and surgeons, the publication of a new medical journal, under the title, *Archives of Scientific and Practical Medicine.*

The original papers in this periodical will form the largest part of every number, and will treat successively of the most various subjects belonging to all the branches of the medical sciences.

This journal will appear on the first day of every month, each number consisting of about one hundred pages, 8vo, in somewhat small type. Price $4.00 per year.

BOOK NOTICES.

The Microscope and Microscopical Technology. A Text Book for Physicians and Students. By Dr. Heinrich Frey, Professor of Medicine in Zurich. Translated from the German and edited by George R. Cutter, M. D. Illustrated by 348 engravings on wood, and containing the price-lists of the principal microscope makers of Europe and America. From the Fourth and last German edition. New York: William Wood & Co., 1872. 1 vol., cloth, 8vo. pp. 658.

With the increased attention to histology, and the minute study of the secretions, a knowledge of the microscope, extending to a practical familiarity with its construction, mode of employment, and revelations, has of late years become indispensable to the intelligent practitioner. The volume before us is intended to give all that the student or physician is required to know in order to employ with success this most valuable adjunct to his studies. In Germany it has met with a rapid success, which in itself is a strong endorsement of its character.

It is divided into twenty-two sections, commencing with the theory of the microscope, and full descriptions of the various kinds employed for scientific purposes. Several sections are then devoted to the preparation of objects, the reagents used, the processes of staining, impregnating, injecting, drying and freezing objects for the purpose of examination, and their mounting and arrangement. A thorough acquaintance with these technical details is essential to success in the use of the instruments, and the instruction concerning them is given in clear language, well illustrated by the engravings.

The remainder of the volume is occupied with detailed descriptions of the appearance, both in health and disease, of the more important constituents of the body, the secretions, the bones, muscles, nerves, and organs, the connective tissue and cartilage. Equal attention is given to pathology and physiology, the author observing in his introduction, that there is no wide abyss between health and disease, as once was thought, but that the processes of disease are but modifications of those which occur in the normal condition.

The treatment of individnal topics embraces the most recent results of investigations. The exposition of the histology of the nerves in Section Fifteenth, for example, is a masterly summary of the labors in this difficult field. We are not only told what results have been obtained, but the processes to attain these results are fully described, so that any one is enabled to repeat the experiments to his own satisfaction. In some instances fuller details would be welcome. For instance, the study of the metamorphosis of the ordinary epithelial cells of the seminiferous canals into spermatozoa, mentioned on page 559, is too meagerly stated to allow of repetition.

The translation, though here and there a little cumbrous, is on the whole very successful. The technical terms are clearly rendered, which is not always easy where there are so many novel ones, as in German micrography. The illustrations are abundant and well printed, while the paper and binding are exceptionally good for a medical work. A well-prepared index is added, and the price-lists of microscopic apparatus, which closes the volume, adds to its practical utility.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, DEC. 14, 1872.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

☞ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

THE REGISTRATION REPORT OF MICHIGAN.

One of the objects which we have sought to accomplish through the medium of this journal, has been to impress upon the medical profession, and through them on the public officers and people of the United States, a proper appreciation of the importance of accurately kept vital statistics. We have had the pleasure of witnessing from year to year more and more attention bestowed upon this pregnant branch of scientific inquiry, and we have always felt a gratification in bringing to general notice the labors of students in these little understood researches.

One of the most admirable contributions to this subject which we have read, is the Fourth Annual Report, of the Secretary of State, the Hon. DANIEL STRIKER, of the State of Michigan, relating to the registry and return of births, marriages, and deaths, for the year 1870, which has just been issued. The Secretary, in his introductory remarks, very freely gives the credit of the discussion of the numerous statistics it contains to Dr. H. B. BAKER, a well-known member of the State Medical Society, and a statistician of recognized skill.

The thoroughness with which Dr. BAKER has performed this tedious and, as far as the public is concerned, thankless task, can best be illustrated by selecting a few of the many striking results which he has obtained, and judicious suggestions he has made, from a consideration of the tables placed in his hands.

On pages 7-9, the question of the relation of marriage at certain seasons to the birth rate is discussed. The facts seem to show that although in certain months marriages are more frequent, conceptions are not correspondingly frequent. The study of marriages in relation to births in this connection is novel and important. For as Dr. BAKER observes, if it be ascertained that for physiological reasons it will conduce much more to the health and happiness of the parties concerned if marriages or births occur at certain seasons of the year, the slight considerations which are now allowed to control these events may be overborne by that knowledge, and a greater degree of health and happiness result.

The much debated point as to whether native American couples are less fecund than foreign born couples, is entered upon with temperance and caution. There is an absence of that anxiety to make a sensational exhibit which we have noted elsewhere. Statistics, he considers, are yet inadequate to answer decisively. But meanwhile it must be kept in mind that mere multiplication is not replenishment; that because American couples have fewer children they do not necessarily contribute less to the population; that the undoubted superior viability of their children is unquestionably largely owing to their limited numbers; that length of life must be counted as well as the mere fact of birth, etc. Entirely approving, as we do, on physiological, social, and moral grounds, the limitation of families by proper methods, we earnestly commend to those of

a different way of thinking the thoughts which flow from a study of these factors and influences.

The theories which have been framed in order to explain the diversity of sex in children are many and curious, but as a rule lack verisimilitude. Dr. BAKER directs attention to the fact that no very thorough attempt has been made to group together the evidences contained in statistics of births, marriages, and deaths, which bear directly and indirectly on this subject. He inaugurates an attempt in this direction, very suggestive even within the limits to which he carries it. It is a fair inference from his tables that causes tending to increase the birth rate tend also to increase the proportion of female offspring, this being of course equivalent to decreasing the proportion of males. This, it occurs to us, is rather in favor of Thierry's well-known law of sex production (namely, that the sooner conception follows ovulation, the greater the probability of the fetus becoming a female), for certainly the birth rate would be increased by an increased liability to conception, and this in turn is augmented by the sooner coitus follows the escape of the ovum from the ovary.

Passing many other points of almost equal interest, the observations of Dr. BAKER on the Expectation of Life in insurance are especially noteworthy. He shows that the present tables are defective in several respects, and indeed, that they are based on a false premise altogether. His arguments on this question (pages 169--183) deserve the most serious consideration from all interested in any way in Life Insurance. In his opinion the true average expectation of life at any given age, is the age at which one half the number living at that age shall have died. The difference between this and the ordinary formula is considerable. By the "American Experience Table" the expectation of life at the age of ten years is 48.72 years; by Dr. BAKER'S formula it is 54.65 years.

The results of the compilations are exhibited to the eye in a series of lithographic diagrams, which facilitate much the ease of following the discussions of the tables.

While we have said enough to show the uncommonly suggestive character of Dr. BAKER'S deductions from his materials, we have by no means exhausted or even indicated the full extent of his stores. We prefer the reader should satisfy his interest in such matters by reference to the original volume itself.

ON POPULAR MEDICINE.

The position which thinking men have long assumed with reference to popular works on the various branches of medical science has been one entirely favorable to them, whenever they were written by able regular physicians, and with that skill in the treatment of such subjects which is demanded to present them felicitously to the general mind. The more eminent a physician becomes in a branch of his art, the more desirous should he be to see just views regarding it disseminated among his fellow beings.

On no subject is there a more general interest than on that embraced in the studies of the physician. The preservation of life and the maintenance of health are of the weightiest moment to all intelligent men and women, and on none do they more ardently seek information. The curiosity to know something of the machinery of the body and its leading functions is a legitimate one, conducting to beneficial results, and ought to be encouraged, and, as far as we are able, gratified. We go so far as to recognize no line of demarcation, and we do not say dogmatically to the public about science, as in the days of old, theologians said to anatomists and other investigators: "Hitherto shalt thou come, but no further." Physicians, freed at length from the shackles of theological narrowness, adopt it themselves in turn, and often attack and abuse the man who would throw science at once open to the multitude.

The reason of this is said by them to be that the morals of the people will be contaminated by the study of certain branches of medicine, especially obstetrics, venereal diseases, and complaints of the generative organs, as well as the physiology of those functions. That they themselves experienced any moral debasement when they commenced to study these branches they do not concede; but that all others will, they do not doubt. It is, in other words, the old, narrow, dogmatic, egotistic, superannuated spirit which forced Vesalius to perish miserably because he had dared to make a *post-mortem*, and which, for so many centuries, shut off all investigation of science to the inquiring mind. It is time this twaddle about morals being injured by increased intelligence should cease.

We have been led to these thoughts by glancing over some of the admirable series of "*Illustrated Health Books*, published by Mr. J. J. Weber, of Leipzig. Their full title is *Illustrirte Gesundheitsbucher. Belehrungen uber den Gesunden und Kranken Menschen 'und die vernunftgemasse Pflege desselben.* Each of them is a small octavo of 150 or 200 pages, and there are twenty in the series (not all yet published). They are written each by some eminent specialist in the particular branch treated of, and the subject is discussed in an easy, plain, and popular manner, but with abundant thoroughness. Among those which have already appeared we have examined with especial interest the one on "The Lungs," by Dr. PAUL NIEMEYER, of Magdeburg, and that on "Diseases of Women," by the eminent aulic counsellor, Dr. ROBERT FLECHSIG, of Elster. They are both written in the most satisfactory manner, and though we might criticise here and there some scientific views, we have been throughout pleased with the propriety of expressions and illustrations, the judicious tone used, and the value of the hygienic information conveyed.

Among the other writers whose names appear as authors in this series we may note the distinguished Dr. KLENCKE, of Hanover, who has done so much in this field, and who contributes the book on "The Teeth;" Dr. JULIUS VOGEL, of the Pathological Institute of Halle, who treats of "Corpulence;" Dr. E. L. MERKEL, of the Policlinic of Leipzig, to whom has been entrusted the volume on the Larynx; and others of equally well-recognized ability.

While this series is an excellent one, it is better adapted for imitation than translation. There is a fine field open in this country to the energetic publisher who would produce a similar series adapted to the wants of our people, and have that prepared by men in this country, already well known for their successful study of special branches. We have many such, though but few who have the tact to write of their branches in the proper manner to instruct, without being either too deep, too dry, or too superficial.

Our really first-class writers on popular medicine, those who have proven themselves so, might be numbered on the fingers, and it would not require the whole ten either. The result of it is that the medical works most frequently seen, simply for default of better ones, in the hands of laymen, are by notorious, half-educated, self-seeking, irregular doctors, who always aim to make them a vehicle to ride into a practice which otherwise they could not get. The day of something better is delayed by nobody but the profession itself.

ERRATA.

In the Report of Dr. DA COSTA'S Clinic, published Nov. 30th, 1872, on page 477, the last line but one of the case of Hemiplegia with Aphasia should read—"and where the possibility of embolism *does not* exist."

Page 478, case of Uræmic Coma, six lines from top, read "five minims of muriatic acid every four hours," instead of three times daily.

Notes and Comments.

How to Save Money.

We desire to call our subscribers' attention to the fact that our terms remain:

Medical and Surgical Reporter	$5 00
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payable always *in advance;* but when more than one of these publications are taken, we allow a notable discount as follows:

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But these low rates can only be given when the remittance is made *in advance* direct to our office. An early remittance, therefore, will effect a saving well worth making.

The cost of the Pocket Record is slightly increased over last year, owing to increased cost of manufacture. As a general preference has been expressed for the smaller size (35 patients), we have omitted the manufacture of the larger size (70 patients).

Castration of the Human Female.

Our old friend, Dr. William A. Tatem, of Delaware, in a letter to us, describes a case equal to the famous one of the sow-spayer who removed his daughter's ovaries, given by Bœrhaave. Dr. Tatem says:—

"Early in the present century a man living in Gloucester county, New Jersey, was well known in that region as a castrator and spayer of domestic animals, and about the year 1813 performed the latter operation on his wife, giving as a reason that she must not have any more children. If memory serves me right, the incision was made in one side, and both ovaries removed through the aperture. The woman became very ill, and Dr. Ayers, then living in Woodbury, was called to attend her.

"A few weeks since I wrote to my old friend, with whom I commenced the study of medicine, Dr. Joseph Fithian, requesting him to give me what information he could about the fact. He replied that in 1815, when he came to reside in Woodbury to practice, he heard the case spoken of, and credit given Dr. Ayers for preserving the life of the woman, and saving the man from punishment."

The Hereditary Influence of Drunkenness.

Dr. Mitchell, Commissioner of Lunacy for Scotland, as we learn from the *Journal of Mental Science*, October, 1872, gave the following testimony before the House of Commons:—

Have you paid any attention to the hereditary influence of drunkenness or excessive drinking? Yes; and I think it quite certain that children of habitual drunkards are, in a larger proportion, idiotic, are, in a larger proportion themselves habitual drunkards, and are, in a larger proportion, liable to acquired insanity, that is, the insanity which comes on in later life, than are the children of other people. But this should be kept in view, that many habitual drunkards are also predisposed to insanity; the excessive drinking in them is itself the form which the insanity takes, and what they transmit to their children is really that disposition to insanity which they had themselves, and which may find expression in the children in idiocy, insanity, or crime.

The Cure of Inebriety.

A circular of the Pennsylvania Sanitarium, at Media, gives the following statistics of 126 cases from Philadelphia received by it:—

In 1867 thirteen were admitted, of whom six clerks, two merchants, and one mechanic, have been restored, and continued to be useful citizens during four years.

In 1868 twenty-two were admitted, of whom five clerks, two merchants, one lawyer, one mechanic, and one agent, have given three years' evidence of usefulness.

In 1869 twenty-three were admitted, of whom four clerks, one merchant, one mechanic, two actors, one agent, and one lawyer, have done well for two consecutive years.

In 1870 twenty-three were admitted, of whom eight clerks and three merchants have given evidence of stability for one year.

In 1871 twenty-eight were admitted, of whom five clerks, two merchants, one physician, one constable, one manufacturer, one publisher, and one mechanic, have stood firm since their return to their families and occupations.

In 1872 seventeen have thus far been admitted, of whom six have left with a good prospect of continuing in well doing.

A summary of this statement shows nine who have maintained their sobriety for four

years, eleven for three years, ten for two years, eleven for one year, and eighteen for less than one year. It is proper to observe, however, that four of the whole number have died since they left the Institution, three of consumption, and one of fever.

Correspondence.

Notes of a Case of Remarkable Longevity.

Eds. Med. and Surg. Reporter:

I send you some notes of a remarkable and undoubted instance of longevity. John Phillips, the subject of this record lived to the uncommon age of 104 years, 7 months, and 26 days. He was born in Sturbridge, Massachusetts, on the 29th day of September, 1760, and died February 25th, 1865. He lived and died on the farm where he was born. I knew him well, from my early boyhood to his death, during a period of nearly forty years, and in my earliest recollection of him, was wont to regard him as a very old man. He was compactly built, of large size, long body, short extremities, and stout muscular development. At the age of 16 he weighed 196 pounds, and stood six feet in his stockings. His weight, subsequently, varied from 166 to 204. His organization was not a fine one, the bilious temperament predominating, yet well and evenly developed in muscle, bone, nerve, and blood; with tough, hardy and enduring qualities of constitution. He had a large nose, prominent cheek bones, light complexion, a full brow, and a broad, long chin. He was a man of stability, steadiness, practical judgment, and good common sense, and rarely gave way to passion or rash impulse. He always lived plain and frugal; was temperate in eating, drinking, working, and in all things. He labored as a farmer constantly, but not very laboriously, or to late hours. He usually retired to bed early, and rose early in the morning. His beverages were cold water, tea, coffee, and cider. From his youth to upwards of 50 he smoked and chewed tobacco, and, subsequently, during life, he snuffed it. He lived with his father, and his father with him, and he with a son. Their families ever lived together, and ate at the same table. He was married at the age of 25, and lived with his wife 64 years, and by her, during a period of 26 years, had nine children, seven of whom grew to have families, and five were living at the time of his death, the oldest 78 years, and their united ages 336. He left 30 grandchildren, 38 great grandchildren, and one great great grandchild.

He retained his physical powers remarkably as great age came upon him. When nearly 90, he was accustomed to labor nearly all day in the field during harvesting, mowing with great ease and celerity a large part of it. This he continued to do more or less till he was 96. When upwards of 90, he laid up and relaid on his farm, alone, about twenty rods of stone wall,, working four or five hours daily, and making about two rods per day. He never had a severe fit of sickness, after he was 14 years of age, till his last, and for nearly fifty years previous to this had not called upon a physician. His one hundredth birthday was suitably celebrated by his family and friends in his native town. In the presence of a large congregation assembled at church, he opened the exercises with suitable remarks and appropriate prayer, delivered in a clear and forcible manner. On the second election of President Lincoln, he went to the polls and cast his vote, at which time he was 104 years and 4 months old. Mr. Lincoln, hearing of this act, sent him a congratulatory letter, the original of which now lays before me. He had voted at every Presidential election since the adoption of the United States Constitution, with the exception of that of 1860.

I saw him a few weeks before his death, and made the following record of his physical condition: "He weighs about 200 pounds; his face is nearly free from wrinkles; his hearing and sight comparatively little impaired; his general health good, and all his bodily functions well performed except that of locomotion; he is considerably bent over, and seldom goes out of doors; his mind still retains much of its original strength and vigor; his recollection is remarkably retentive of events that occurred from his early boyhood to within ten or twelve years, so that his mind sweeps over a period of more than eighty years; he converses intelligently, and takes a lively interest in the political affairs of the country; he is thoroughly interested in the war, understands the geography of the Southern States, watches closely the movements of our army and navy, and fully appreciates our successes; he feels anxious to live to see the war over, and once more a peaceful and united country. In the family of which he forms a part, consisting of seven persons, are four generations."

He grew fleshy during the last four years of his life. He was not confined to his house till within a few weeks of his death, which was occasioned by an attack of influenza, which terminated fatally in six days.

Timothy Newell, M. D.

Providence, R. I., Dec. 2, 1872.

News and Miscellany.

The United States Army in 1871.

The President's Message says, the annual average mean strength of the army was 24,101 white and 2494 colored soldiers. The total deaths for the year reported were 367 white and 54 colored. The distribution of the medical and surgical history of the war is yet to be ordered by Congress. There exists an absolute necessity for a medical corps of the full number established by the act of Congress of July 28, 1860, there being now 59 vacancies, and the number of successful candidates rarely exceeds eight or ten in any one year.

District Medical Society of the County of Mercer, New Jersey.

The society met at Trenton on Tuesday, December 3d, with a good attendance. As has got to be too much a habit of late in that society, neither of the essayists were present, which detracted much from the interest and profit of the meeting.

Dr. Meeser, of Titusville, related a case of traumatic tetanus, followed by recovery.

Dr. J. B. Coleman announced the death of Dr. Edmund Hance, formerly President of the society, and offered the following:

Resolved, That the District Medical Society of Mercer county have heard with regret of the death of Dr. Edmund Hance, their old associate and former President; and as a mark of the high esteem with which the deceased was regarded by them, be it further

Resolved, That the members of the society attend the funeral of the deceased to-morrow, at 10 o'clock A. M., at the State Street M. E. Church. Adopted.

Drs. Meeser and Warman were appointed Essayists for next meeting.

The Plea of Insanity.

A bill has been introduced into the Indiana Legislature, which provides that in cases of homicide where the plea of insanity is set up, and the defendant is acquitted, the jury shall specify in their verdict whether the return of "not guilty" was upon that ground. If so, the maniac, who, in an instant of uncontrollable irresponsibility, slew a fellow creature, is forthwith to be consigned to a lunatic asylum, not until pronounced sane by another jury, but for life, or a term of years, according to the nature of the crime charged.

By a recent government order in France all patent medicines and cosmetics are to be subjected to careful chemical analysis, and the sale prohibited of such as are found to contain any deleterious ingredient. In America more harm is done by the perpetual ingestion of poisonous nostrums than in the whole of Europe put together. A significant admission by a newspaper!

The wife of Dr. Benjamin F. Hardy, a prominent physician of San Francisco, took chloroform recently to cure neuralgia, and died from the effects of the dose.

General Joseph Hooker is regaining his health, and is reported to have ridden on horseback a few days since, for the first time in four years.

Dr. Andrew Ottarson, successor of the late Dr. Cochran, was sworn in as Health Officer of Brooklyn December 3d.

NOTES AND QUERIES.

Theriaque.

Novice. "What do the French mean by *theriaque?*"

Reply. It is a compound preparation the virtue of which consists solely in the opium it contains. Of this drug, in its crude form, four grammes of *theriaque* contains five centigrammes.

Climatology.

Reader. "Whose work on Climatology do you consider the best?"

Reply. To those who can read German Maury's *Klimatologische Untersuchungen.* To those who cannot, the treatises of the English authors, Bennett, and Johnson.

J. S., of Phila. We saw the error, but too late. The "Comic Law" is good.

MARRIAGES.

Bullard—Smith.—On Saturday evening, Nov. 30, 1872, by the Rev. S. Gregory Lines, Pastor of St. Stephen's Church, Florence, J. Arthur Bullard, M. D., formerly of Montrose, to Miss Maggie Smith, of Philadelphia.

Cannon—Pellet.—Nov. 14th, in Papakating, N. J., by the Rev. A. Tully, Frederick M. Cannon, M. D., of Deckertown, and Charlotte E. Pellet, of Papakating.

Coburn—Graves.—In Claremont, N. H., Nov. 20th, by Rev. F. W. Towle, James M. Coburn, of Dracut, Mass., and Hattie M., daughter of Dr. L. J. Graves.

Dickson—Caldwell.—In Pittsburg, Nov. 28th, 1872, at the residence of James Caldwell, Esq., by the Rev. T. H. Hanna, Dr. John S. Dickson and Miss Sallie H. Caldwell, both of that city.

Rutledge—Hall.—Oct. 10th, 1872, by Rev. T. J. Turner, Dr. S. R. Rutledge, of Blairsville, Pa., and Miss Lide J. Hall, of Allegheny county, Pa.

Terry—Gardiner.—In this city, at the Fifth Baptist Church, December 5th, by the Rev. Warren Randolph, Mr. Arthur L. Terry, of Philadelphia, and Miss Mary Walter Gardiner, daughter of Dr. D. R. Gardiner, of Pottsville.

Weaver—Lehman.—Nov. 27th, by Rev. A. J. Weddell, at the residence of the bride's parents, Norristown, Pa., Dr. Jos. K. Weaver and Miss Amelia R. Lehman, daughter of Henry Lehman, Esq.

Wernwag—Keichline.—At the residence of the bride's parents, the third inst., by the Rev. J. W. Claxton, Wm. P. Wernwag and Mary P. Keichline, daughter of Chas. P. Keichline, M. D., all of this city.

DEATHS.

Atlee.—In this city, on the 4th inst., Louise, youngest child of Dr. Walter F., and Louise Atlee, aged 2 years.

Elliot.—In New York, Nov. 30, Ernest Frank, eldest son of Dr. Augustus G. and Lizzie A. Elliot.

Hance.—At Glassboro, N. J., November 29th, Dr. E. Hance, in the 57th year of his age.

Moore.—In Cincinnati, Nov. 26th, Dr. John K. Moore, in his 82d year.

Rogers.—At Chicago, on the 26th ult., of pneumonia, Gustavus A. Rogers, M. D. (formerly of Bath, Steuben County, N. Y.), in the 75th year of his age.

Webb.—On the 19th of November, at the residence of Andrew Shaw, Esq., Falmouth, Nova Scotia, Angeline W. Webb, daughter of the late Dr. Samuel Webb, of Stamford, Conn.

Wilson.—Suddenly, Nov. 30, at Mendham, N. J., Wm. Wilson, M. D., of New York, in the 67th year of his age.